

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lilia Safonov on 8/14/2009.

The application has been amended as follows:

Claim 1. A method for extracting cerebral ventricular system information from images of one or more cerebral ventricular regions, the method comprising the steps of:

- 1) defining multiple regions of interest (ROI) in the images, at least one of the images having multiple ROIs defined within;
- 2) altering the ROIs based on desired histogram distribution within the ROIs;
- 3) defining seed points within each ROI;
- 4) growing images of ventricular regions in 3D space while correcting for leakages into extraventricular space; and
- 5) connecting the ventricular regions grown;

wherein the steps are executed by a computing apparatus, and the steps of defining multiple ROIs, defining seed points and growing images are applied to one or more images of a left

ventricle, a right ventricle, a third ventricle and a forth ventricle; and the ROI is defined by a two-dimensional area encompassing a ventricle with surrounding white and grey matter, the ROIs corresponding to the third ventricle (V3), the fourth ventricle (V4), the left lateral ventricle (VLL) having a body (VLL-B) and an inferior (temporal) horn (VLL-I), the right lateral ventricle (VLR) having a body (VLR-B) and an inferior (temporal) horn (VLR-I), an anterior commissure (AC), a posterior commissure (PC), and a midsagittal (MSP).

Claims 1-53 are allowed. The following is an examiner's statement of reasons for allowance: Limitations pertaining to defining seed points in regions of interest (ROIs) that are defined by a two-dimensional area encompassing a ventricle with surrounding white and grey matter (such that the ROI cannot be interpreted as being the result of image segmentation); and altering these ROIs based on desired histogram distribution within the ROIs; and three dimensional region growing, in conjunction with all other limitations present in independent claim 1, distinguish over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATIBA O. FITZPATRICK whose telephone number is (571)270-5255. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir A. Ahmed can be reached on (571)272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. O. F./
Examiner, Art Unit 2624

/Samir A. Ahmed/
Supervisory Patent Examiner, Art Unit 2624